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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/566,574

02/16/2006

Normann Sandoy

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DENNISON, SCHULTZ & MACDONALD  
1727 KING STREET  
SUITE 105  
ALEXANDRIA, VA 22314

EXAMINER

CUEVAS, PEDRO J

ART UNIT

PAPER NUMBER

2839

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/566,574

Applicant(s)

SANDOY ET AL.

Examiner

PEDRO J. CUEVAS

Art Unit

2839

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 February 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 January 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.
2. The amendment to the claims filed on October 13, 2010 does not comply with the requirements of 37 CFR 1.121(c)(1) because claims 13 and 14 are missing. Amendments to the claims filed on or after July 30, 2003 must comply with 37 CFR 1.121(c) which states:

(c) *Claims*. Amendments to a claim must be made by rewriting the entire claim with all changes (*e.g.*, additions and deletions) as indicated in this subsection, except when the claim is being canceled. Each amendment document that includes a change to an existing claim, cancellation of an existing claim or addition of a new claim, must include a complete listing of all claims ever presented, including the text of all pending and withdrawn claims, in the application. The claim listing, including the text of the claims, in the amendment document will serve to replace all prior versions of the claims, in the application. In the claim listing, the status of every claim must be indicated after its claim number by using one of the following identifiers in a parenthetical expression: (Original), (Currently amended), (Canceled), (Withdrawn), (Previously presented), (New), and (Not entered).

(1) *Claim listing*. All of the claims presented in a claim listing shall be presented in ascending numerical order. Consecutive claims having the same status of "canceled" or "not entered" may be aggregated into one statement (*e.g.*, Claims 1–5 (canceled)). The claim listing shall commence on a separate sheet of the amendment document and the sheet(s) that contain the text of any part of the claims shall not contain any other part of the amendment.

### ***Response to Arguments***

3. Applicant's arguments, see pages 8-13, filed on February 16, 2011, with respect to the rejection(s) of claim(s) 6, 9, 11 and 12 under 35 U.S.C. § 102(b) and claims 7, 8, 10, 13 and 14 under 35 U.S.C. § 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of U.S. Patent No. 3,543,518 to Shibata and U.S. Patent Application Publication No. 2002/0139629 A1 to Nogaret et al.

***Drawings***

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the six poles of the generator and the 24 poles of the propulsion motor must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended”. If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 6-8, 11 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 3,543,518 to Shibata in view of U.S. Patent Application Publication No. 2002/0139629 A1 to Nogaret et al.

Shibata disclose the construction of arrangements combining a plurality of prime mover powers, comprising:

a driving machine (21);

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an electrical generator (20) having an electrical output and a plurality of poles, powered directly by the driving machine;

an electrical propulsion motor (13) having a plurality of poles, powered by the output of the electrical generator, with a fixed and direct electrical connection thereto; and

a propulsion device (8) operated by a mechanical connection (9 & 20) to the electrical propulsion motor;

the electrical generator and the electrical propulsion motor having operating characteristics which are substantially the same.

However, it fails to disclose said generator and said motor being of the synchronous, permanent magnet type.

Nogaret et al. disclose the construction of an electrically propelled vehicle, comprising a synchronous, permanent magnet motor (paragraph [0027]) that can function as a generator.

It would have been obvious to one skilled in the art at the time the invention was made to use two of the synchronous, permanent magnet type machines (one configured as a motor, the other configured as a generator) disclosed by Nogaret et al. on the arrangement(s) disclosed by Shibata for the purpose of providing a system with newer, improved electronics having a larger torque capacity, more reliability, better operation and extended service life.

9. With regards to claim 7, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a ratio between the number of poles in the generator and the number of poles in the propulsion motor of 3:1 to 1:20, since it has been held

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that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

10. With regards to claims 8, 13 and 14, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide:

a generator having fewer poles than the propulsion motor;

a generator has six poles, yielding 50 Hz at 1000 rpms; and

a propulsion motor having 24 poles;

since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

11. With regards to claim 11, Shibata disclose the driving machine being a speed-adjustable combustion engine.

12. With regards to claim 12, Shibata disclose the engine being a diesel engine. It must be noted that Figure 1 of Shibata disclose a gas turbine engine (7) directly connected to a generator (5) which is directly electrically connected to an electric motor (3) which mechanically drives a propulsion device (8).

13. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 3,543,518 to Shibata in view of U.S. Patent Application Publication No. 2002/0139629 A1 to Nogaret et al. as applied to claims 6-8, 11 and 12-14 above, and further in view of U.S. Patent No. 5,199,912 to Dade et al.

Shibata in view of Nogaret et al. disclose the construction of arrangements combining a plurality of prime mover powers as disclosed above.

However, it fails to disclose the output of the electrical generator is additionally connected to a branch circuit for feeding a consumption network, a frequency converter being provided between the output and the branch circuit to provide a stable frequency from the generator.

Dade et al. disclose the construction of an electric power system for marine vehicles, comprising an electrical generator (14) connected to a plurality of branch circuits (54, 56) for feeding a consumption network (62, 64), a frequency converter (58, 60) being provided between the output and the branch circuit to provide a stable frequency from the generator.

It would have been obvious to one skilled in the art at the time the invention was made to use the branch circuits and frequency converters disclosed by Dade et al. on the arrangements disclosed by Shibata in view of Nogaret et al. for the purpose of providing regulated and modulated electrical power to the loads of the ship.

14. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 3,543,518 to Shibata in view of U.S. Patent Application Publication No. 2002/0139629 A1 to Nogaret et al. and U.S. Patent No. 5,199,912 to Dade et al. as applied to claim 9 above, and further in view of U.S. Patent No. 6,242,881 B1 to Giordano.

Shibata in view of Nogaret et al. and Dade et al. disclose the construction of arrangements combining a plurality of prime mover powers as disclosed above.

However, it fails to disclose an additional auxiliary generator powered by the driving machine for feeding a consumption network, a frequency converter being provided between the auxiliary generator and the consumption network.



Giordano disclose the construction of an alternating current-starting device, comprising:

a driving machine (32);

an on board alternator (25); and

an auxiliary generator (34);

wherein the on board alternator and the auxiliary generator are powered by the driving machine (Figure 3).

It would have been obvious to one skilled in the art at the time the invention was made to use the an additional auxiliary generator powered by the driving machine as disclosed by Giordano in the arrangements disclosed by Shibata in view of Nogaret et al. and Dade et al. for the purpose of powering various equipment with electrical current (column 5, lines 57-59).

### ***Conclusion***

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PEDRO J. CUEVAS whose telephone number is (571)272-2021. The examiner can normally be reached on M-F from 9:00 - 6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, T. C. Patel can be reached on (571) 272-2098. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/PEDRO J CUEVAS/

Primary Examiner, Art Unit 2839

June 1, 2011